

richten, I soon found that a very close approach to the planet *Jupiter* must have occurred about the 20th of May, 1842: the comet at this time would be hardly further distant from *Jupiter* than the mean distance of his fourth satellite. The action of the planet would be more than ten times greater than that of the Sun; and it is very possible that a complete change might be produced in the elements of the comet's orbit. This encounter took place rather to the south of the plane of the ecliptic, in about $283\frac{1}{2}^\circ$ heliocentric longitude."

5. *PETERS'S COMET* (26th June, 1846).

On the 26th of June, Dr. C. H. F. Peters, of the Observatory of Capodimonte, found a very small comet in the constellation *Scorpius*, near 595 Mayer, and about one degree to the south of the nebula H. VI. 19, or 535 of *Smyth's Cycle*. The new object was quite as pale as the nebula, and somewhat rounder. The motion was perceptible at the end of an hour, when Dr. Peters commenced his observations with the Equatorial of Reichenbach. These were continued on following nights till stopped by moonlight. The following are the results corrected for refraction:—

1846.	Naples Sid. Time.	R.A.	Dec.	No. of Obs.
	^h ^m ^s			
June 26	17 24 4.0	226° 51' 31".4	—21° 38' 42".4	3
27	16 19 3.0	227 18 53.9	20 57 19.9	7
28	17 2 18.0	227 49 20.2	20 14 19.8	4
29	16 48 45.6	228 19 3.8	19 33 4.3	6
30	17 53 10.3	228 48 48.3	18 50 36.0	5
July 1	18 24 25.7	229 19 15.9	18 10 37.4	5
11	16 57 24.8	234 5 53.5	12 31 31.1	2
12	17 19 34.1	234 33 39.8	12 2 18.7	4
13	17 18 29.1	235 2 16.3	11 34 45.7	4
14	17 6 56.8	235 29 45.7	11 8 19.7	4
15	17 39 10.5	235 59 18.8	10 40 10.3	3
16	17 19 26.3	236 26 47.1	10 16 1.4	5
17	17 31 47.6	236 55 9.8	9 50 33.5	4
18	17 43 22.4	237 26 5.3	9 27 23.5	4
19	17 41 14.2	237 52 22.4	9 3 53.1	4
21	17 51 58.3	238 47 28.0	—8 19 12.3	3

It was seen on the 23d July, but it was too faint to be observed.

Upon these observations Dr. Peters has calculated the following elements, taking into account all small corrections (*Parall. Aberr. Nutat.*)

Perihelion Passage	1846, May 30,	^h ^m ^s	12 56 3.0,	Berlin M.T.
Perih.	.....	237° 20' 28".2	} Mean Equinox,	
Ω	.....	258 45 12.6		July 1.
i	.....	34 0 41.7		
Log. q	.....	0.204635		
Motion Direct.				

These elements differ considerably from a first rough sketch. Dr. Peters believes them to be near the truth; still they give from day to day considerable anomalies, when compared with the observations.

6. VICO'S FIFTH COMET (July 29, 1846).

This comet was also detected by Mr. Hind, at the South Villa Observatory, on the night of July 29, 1846, about 11 o'clock, two hours after its first discovery by Mr. De Vico.

"The following positions are the results of instrumental comparisons at South Villa Observatory with known stars, not far distant from the comet; but owing to the extreme faintness of this object, the observations of August 4-15 inclusive, are very uncertain:—

	Greenwich M.T.	R.A.	Dec.
	^h ^m ^s		
July 29	12 6 6	48° 53' 47"	+ 60° 37' 2"
30	10 17 35	48 5 34	60 42 33
31	9 56 19	47 12 6	60 48 10
Aug. 4	11 11 21	43 11 19	61 8 14
13	9 21 21	32 4 0	61 15 8
14	9 50 23	30 35 57	61 11 5
15	12 56 27	28 55 22	61 5 10
21	9 46 27	19 39 27	+ 60 2 8

"On July 29 and 30, we obtained some micrometrical measures with two small stars. On the 29th, at 13^h 25^m 25^s Greenwich mean time, the comet followed a star of 8.9 magnitude, 2^m 12^s 33, and was south of it 16' 17".8. This star is found in Argelander's Zones; and the apparent place for July 29, as given in Professor Schumacher's *Comet Circular*, was

$$\text{R.A. } 3^{\text{h}} 13^{\text{m}} 11^{\text{s}}.86 \quad \text{Dec. } + 60^{\circ} 53' 47''.0$$

whence the comet's place was

$$\text{R.A. } 3^{\text{h}} 15^{\text{m}} 24^{\text{s}}.19 \quad \text{Dec. } + 60^{\circ} 37' 29''.2$$

"On July 30, at 11^h 23^m 13^s mean time, the comet followed a 9th magnitude star 1^m 25^s 07, and was south of it 45".04; but we have not yet identified this star in any of our Catalogues. On this night, with great attention, and an exact knowledge of the position, the comet was just perceptible in the comet-searcher."

ELEMENTS of DE VICO'S FIFTH COMET, by Mr. A. Graham of Markree Observatory.

The observations employed were, one at Mr. Bishop's observatory, July 29; that of Paris, on August 18; and another made by Mr. Cooper, on August 31:—